



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

SEP 6 2001

DOT-E 7026
(EIGHTH REVISION)

EXPIRATION DATE: August 31, 2003

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Kidde Aerospace
(Former Grantee: Walter Kidde Aerospace)
Wilson, North Carolina
2. PURPOSE AND LIMITATIONS:
 - a. This exemption authorizes the manufacture, mark, sale and use of non-DOT specification welded stainless steel cylinders conforming with DOT specification 4DS except for maximum charging pressure, material of construction, testing requirements and marking. The cylinders are authorized for the transportation in commerce of a Division 2.2 material. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.304(a)(1) and 175.3 in that a non-DOT Specification cylinders are not authorized, except as specified herein.
5. BASIS: This exemption is based on the application of Kidde Aerospace dated July 3, 2001, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

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Proper Shipping Name/ Hazardous Material Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Compressed gas, n.o.s.	2.2	UN1956	n/a

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification welded stainless steel cylinder having 2,500 cubic inch maximum water capacity and a 1,400 psi maximum service pressure manufactured in compliance with DOT Specification 4DS (§ 178.47) except as follows:

§ 178.47 (a) Service pressure not to be over 1,400 psi.

§ 178.47 (b) Type ARMCO 21-6-9 stainless steel authorized with proper welding procedure complying with the analysis documented on page 4 of petitioner's letter dated November 22, 1974.

§ 178.47 (f) Wall stress at the minimum specified test pressure must not be over 90,000 psi.

§ 178.47 (g) Heat treatment. Welded cylinder must be stress relieved at a temperature of 900°F ± 25°F after process treatment and before hydrostatic test.

§ 178.47 (h)(2)(iii) Add: Cylinders with marked service pressure greater than 900 psi must have straight threads having at least 6 engaged threads to have tight fit, and calculated shear strength at least ten times the test pressure of the cylinder, gaskets required, adequate to prevent leakage.

§178.47 (q) Add: Each cylinder must be marked "DOT-E 7026". The elastic expansion in cubic centimeters must be marked to the nearest 1 percent near the test date.

b. TESTING - In addition to the testing required under § 178.47, cyclic pressurization testing must be performed on certain containers as follows:

Prior to initial shipment of any specific cylinder design having a service pressure exceeding 900 psi or having a wall stress at test pressure exceeding 75,000 psi or both, a cyclic pressurization test must be performed on at least one representative sample without failure to 10,000 cycles. Pressurization shall be performed hydrostatically between approximately zero psig and the service pressure, at a rate not in excess of 10 cycles per minute. The cylinder used in the cycle pressurization test may be used for the burst test required under § 178.47(1). Additional tests shall be repeated on one random sample out of each lot of cylinders. All cylinders used in cycling tests must be destroyed.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this exemption must be marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

f. The cylinder must be shipped in strong outside packaging in accordance with § 173.301(k).

- g. Each cylinder must be retested and requalified every five years in accordance with § 173.34(e) as prescribed for DOT 4DS cylinders. A cylinder must be condemned if the elastic expansion exceeds the original elastic expansion by more than 5 per cent, or if the permanent expansion to total expansion ratio exceeds 10 per cent.
- h. Transportation of oxygen is only authorized when in accordance with § 172.102(c)(2) Special Provision A52 and §§ 175.85(h) and (i).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo aircraft only, and passenger-carrying aircraft.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each aircraft used to transport packages covered by this exemption. The shipper shall furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
 - o Registration required by § 107.601 et seq., when applicable.

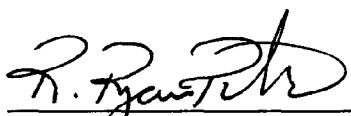
Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the

holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.



for Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

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(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: KFW